

FARLEY

EXHIBIT I

NEW YORK
MEDICAL JOURNAL:

A MONTHLY RECORD OF

MEDICINE AND THE COLLATERAL SCIENCES.

VOL. XVIII.]

DECEMBER, 1873.

[No. 6.]

Original Communications.

ART. I.—*On the Question of the Transmission of Syphilitic Contagion in the Rite of Circumcision.*¹ By R. W. TAYLOR, M. D., Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases.

THE question of the possible occurrence of syphilis in the religious rite of circumcision is one, I think, which may be said to be as yet in a wholly unsettled state, and one which for obvious reasons possesses points of the greatest interest. Though this source of syphilitic contagion is mentioned by some authors in such a manner as to convey the impression that it is an admitted fact, I think that a careful reconsideration of all the facts which we possess in support of such a view will lead to the conclusion that it is not by any means fully proved. For, when all the details relating to the various suspected cases are critically examined, it will be seen that we have not the history of a single case, the symptoms and lesions of which clearly and positively point to syphilis as their origin, nor the case of a single syphilitic child in which syphi-

¹ This paper is based mainly upon and includes a report, prepared at the request of the Board of Health, upon a series of suspected cases. It was submitted to that body June 10, 1873.

litic contagion has been positively traced to the person who circumcised it, he being proved to be syphilitic and to have syphilitic lesions in his mouth. In fact, a suspicion strongly suggests itself that the cases alluded to have been somewhat obscure in their nature, and were attributed to syphilis, for the reason of the existence of lesions on the genital organs, and certain vague symptoms which it was, by some, thought could have no other origin than syphilis. This being the state of the question, any cases, facts, or observations, which tend to throw an additional light upon it, possess great value, and claim our earnest attention and study.

Early in the present year the attention of the Board of Health of New York was called to the existence of four cases in which it was suspected that syphilis had been communicated in circumcision. That body did me the honor of placing the question in my hands for solution, and the result is the paper which follows. It will be seen that, for obvious reasons, I have been unable in such a document to review the whole subject; so, in order to present a full statement of the question, I have appended notes, which, if read in connection with the text, will subserve the purpose quite fully. In the investigation of these cases, the aim of the Health Board has been, not only to establish their nature as clearly as possible, but also to develop such facts and suggestions as would have a bearing upon the question of prophylaxis. This being the scope of the work, the question of how to prevent the occurrence of syphilis in this rite has necessarily occupied considerable space in the report, and this has, of course, assisted in giving a completeness to the present paper. This point has also brought prominently forward certain facts, relating to the performance of the rite, which are of great interest as bearing on the question of contagion.

To Dr. E. H. JAMES, *Sanitary Superintendent, N. Y. City.*

Having, in accordance with your wishes and in association with Assistant City Sanitary Inspector A. B. Judson, examined the two cases of suspected syphilitic contagion in the operation of circumcision, as well as having carefully considered the details of two other similar cases, I hereby submit to you the following report :

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As you know, there were four Jewish children, previously healthy, who, after circumcision by a Hebrew named H—, were attacked by phagedenic ulceration of the penis, and by lesions of the skin and lymphatic ganglia, accompanied, in three of the cases, with exhaustion which resulted in death. The questions which arise, and they are of great importance in their social, sanitary, and medico-legal bearings, are: What is the nature of the disease with which these children were afflicted? In what manner was the disease communicated; or how did it originate? What means can we take to prevent similar cases of disease in future?

In order to answer these questions properly, I shall have to consider at some length the clinical histories of the four cases, to examine into the nature of the operation which they underwent, and then into the present condition of the person who performed the operation.

I may here add that the investigation of these cases has been attended with several drawbacks and under somewhat unfavorable circumstances. Having been entered upon nearly a year after the commencement of the trouble, after two children had already died, among a low and ignorant class of people, and I being unable in several instances to obtain desired information on important points, it is utterly impossible to present all the particulars of the cases. The histories of the cases are as follows:

CASE I.—Simon Gutmann was born May 1, 1872, and was circumcised by H— on the eighth day. Parents were not syphilitic. They state that the wound of circumcision healed in a short time, and that, two months after, the cicatrix became ulcerated, but that the inguinal ganglia were enlarged before that time. Information as to the line of treatment followed was not precise, but I am satisfied that a mercurial course had not been adopted. In company with Dr. Judson, I saw the case February 19, 1873. We found the child to be very fat and well developed, and it was evident that its nutrition was not seriously disturbed. Over the trunk, arms, and thighs, I observed a well-marked papular syphilide of the small variety. The whole eruption had evidently existed for two months, and it had then passed to the stage of decline, as there

were evidences of its involution in its desquamation and fading of color, and in the subsidence of the papules.

On the penis also I found unmistakable lesions. The line of incision in the prepuce, in three-fourths of its extent, was the seat of a hard, indolent swelling. The swelling or induration was divided into two on the dorsum of the penis, being constituted of two lateral halves. The length of each of these indurated nodules was about three-quarters of an inch, and the breadth fully half an inch. To the touch the induration was perfectly characteristic, and presented that cartilaginous hardness peculiar to the Hunterian lesion. When pressed it did not yield, but preserved its contour, and slipped from between the fingers. Upon close examination I found that the indurating neoplasm was developed mostly in the subcutaneous connective tissue, and that the upper portions of the derma were not then involved. This feature is frequently observed in the course of the initial lesion in the adult subject. At the upper portion of the glans there was a small ulcerated spot on the line of union, but it showed no great tendency to extend. The history of the case, as obtained from the parents, was that the wound of circumcision had healed, and that fully two months after, probably more (on this point they were very positive), a sore appeared on the site of the incision, and had remained in an ulcerated condition for several months. In each groin I found a sinus communicating with inflamed ganglia, over which was situated a somewhat inflamed integument. The orifices and general appearances of these sinuses were similar in appearance to those of any simple inflammatory adenitis, and similar also to the suppurative adenitis following enlarged ganglia of syphilis which have suppurated. The post-cervical chain of ganglia was enlarged, and in consequence of the thickness of the fatty tissue I could not ascertain the condition of the epitrochlear ganglia.

At a subsequent visit in May, 1873, I observed that the crop of papules which I had seen in February had nearly disappeared, leaving small, slightly pigmented desquamating spots, and had been replaced by a more pronounced rash on nearly the same sites. The general health of the patient at this time seemed good.

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CASE II.—Harris Lewin was born June 1, 1872, and was circumcised at the eighth day by H——. Parents were perfectly healthy. Its mother says that the incision healed excepting a portion, which became sore two weeks after the operation. According to the mother's statement, this ulceration continued eight months, and we find in the case-book of the German Dispensary that she applied to Dr. Schmidt, in October, and that he recorded it as a case of ulceration of the glans penis and hubo of the right side, which was opened by him. The child lived until the 3d of March, and was then said to have died of pneumonia. It is said that its neck swelled before death.

In company with Dr. Judson I saw this child on the 19th of February, 1873, and then again about two weeks after, at the New York Dispensary. The appearances presented were as follows: Upon the glans penis and upon the sheath of the penis, as far as the pubis, was an ulceration superficial in character and covered for the most part with brownish-yellow crusts. I carefully examined for induration, and I satisfied myself that a hardness existed just around the glans, being quite distinct near the frenum. However, it was not of the positive character of the other case, but was due, I thought, to the cicatricial tissue, which was there more copious than elsewhere. The ulceration was not of the phagedenic character which sometimes complicates the initial lesion, but it struck me at the time as being more of the nature of chronic eczema which had followed a previous inflammation of the parts. The appearances were certainly not those usually observed in severe ulcerations of hard chancres. My opinion of the eczematous character of the ulcers is based on the appearance of the crusts, on the superficial character of the ulcerations, and the condition of the active oedema surrounding them. The well-known fact that a simple eczema may develop and run an uncomplicated course upon a syphilitic subject is in support of this view. According to the statements of the parents, the ulcerations on the penis had at one time nearly healed, and they, after that, assumed the present appearance. This fact also would favor my view of eczema, which besides has as support the well-known pathological

fact that a long-continued, severe inflammation, simple or specific, may engraft upon the integument a tendency to eczema or subsequent hyperemias. In the present instance a long-continued and perhaps specific inflammation had existed fully nine months, and was followed by what, in my opinion, was a simple eczema. The condition of the groins was that of inflammation of all the ganglia and peri-ganglionic connective tissue, with sinuses leading thereto. These sinuses presented nothing peculiar in their appearance, and resembled those observed after simple adenitis. The body of the child was free from present syphilitic lesions. Its general health was very bad; it was thin, pale, delicate, weak, and very peevish. Owing to the extreme ignorance of the parents, we were not able to obtain any other information of the case, than that the child had been cared for by no one but its mother; it had not been allowed to stay even for a few minutes with any nurse-girl, nor was there any other male of the family than its father in the house. The importance of this information I will bring out further on, and I may say that I obtained similar facts from the parents of the Gutmann child, except that it had been cared for during ten days by a very old midwife.

The two following cases were not seen either by me or Dr. Judson, and the details are of course fragmentary and not satisfactory:

CASE III.—Wolf Harris was born June 16, 1872, and was circumcised by H——. Parents lived at No. 65 Mott Street. The wound of circumcision did not heal; ulceration attacked glans, and in a short time the whole penis was involved in the process; and later on it sloughed off. Ganglia were said to have been unaffected. The child died February 1, 1873, and its physician, Dr. Loewenthal, reported that diphtheritic ulceration and exhaustion were the causes of death. In the record there is no mention of cutaneous or mucous lesions. The parents were ascertained to be free from syphilis. The child was past seven months old when it died.

CASE IV.—William Simon was born August 24, 1872, and was circumcised by H——. The father, mother, and brother of the boy, were ascertained by Dr. Weiner to be free from syphi-

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ilis. After the operation an ulcer appeared on the glans penis, which increased so much that cauterization was necessary. Inguinal ganglia became tumefied, and ultimately an opening was made, and pus was discharged. The child was said to have had a syphilitic eruption, but no positive details were given. It was treated by antisymphilitics, but died at Dover, N. J., March 3, 1873. It had abscesses in the back and groins.

In carefully analyzing these cases, it will be seen that, in each one, lesions on the genital organs followed the rite of circumcision, and that in the first case lesions pointing to a grave constitutional disease were observed; but that in the others, though we have evidences of a severe adynamic state of the system, the lesions and symptoms are not described with the accuracy necessary for absolutely definite conclusions as to the exact disease. In studying these cases, therefore, I am only able to draw positive conclusions as to the nature of the disease of the first, and shall have to speak with some hesitation upon that of the other three. Considering the facts that these children were within a period of six months circumcised by one man, and that each was attacked similarly at first, it would seem rational to suppose that they all suffered from the same disease; yet, plausible as this supposition may appear, we are not warranted in arriving at it, until we have been convinced by a careful inquiry into the nature of the cases, their course, their lesions and symptoms, and various collateral facts. As to the nature of the disease of the Gutmann child, I am warranted in saying in advance that it was syphilis, and that the existence of lesions on the penis is the only cause for the suspicion of syphilis in the other three.

In studying the various lesions, I shall begin with those of the genital organs. Recorded cases of primary syphilitic lesions of the genital organs of the infant are as yet so few in number, that we have no systematic description of them, therefore there are some features in these cases which are of clinical value, besides the main interest which is attached to the case itself. As to the character of the induration observed in the Gutmann child, no one at all familiar with syphilis could have mistaken it. It was a hard, cartilaginous mass, readily distinguishable to the touch from the surrounding tissues, and

following accurately the line of union of the prepuce, and not attended, as a complication, with any inflammatory oedema. In the course of no disease other than syphilis would such a lesion be found. From the statement of the parents I learned that it had for a long time been attended with severe ulceration, and the suppurative adenitis of the inguinal ganglia convinced me of the truth of the statement. The length of time of the existence of this induration is peculiar, and is interesting clinically. According to the statement of the parents, whose ideas on other points were not always clear and satisfactory, the ulceration of the penis did not begin for nearly two months; in this assertion they were very positive, particularly the mother, so that I am disposed to accept it as true. I was unable to ascertain definitely the precise time of the commencement of the indurating process, as it was a feature observed by no one at that time. Reasoning by analogy from the course of the development of the initial lesion in children, in other sites of the body, I should say that the syphilitic process, either by erosion, ulceration, or induration, developed itself within a fortnight after contagion. The fact that we have here an open wound, thereby presenting a free and extensive port of entry for the syphilitic virus, would favor the view of a short first period of incubation of syphilis in this child. So the fact that the wound of circumcision healed, and that the initial lesion appeared about six weeks after the performance of the rite, presents, I think, reason for doubt as to whether the contagion took place at that time.

In the early part of its course this initial lesion was attended with adventitious inflammation which involved the ganglia in suppuration. Then gradually the inflammation ceased, leaving the nodules which I have described. The existence of these nodules for a year, or rather their existence in the twelfth month of the initial lesion, presents, as I have said, interesting features. Generally in the child these indurations are not extensive nor of long existence; indeed, in many cases, the induration of an initial lesion is so slight as to be readily overlooked, and, when found, scarcely appreciable. In the present case I should attribute its long duration to the extent and compactness of the neoplasm, as well as to the fact that a

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mercurial treatment had not been instituted. Had this Gutmann child been placed upon a mercurial course, it is very probable that the indurated nodules would have disappeared much sooner.

The next feature of the initial lesion for our consideration is the ulceration, and this brings up the point as to whether the lesions on the genitals of the other children were really syphilitic in their nature. In two cases, according to the history, the ulceration was slow in its progress, so that several months elapsed before the penis was destroyed; in a third it was likewise slow in its course, but finally healed, and was replaced by an eczematous eruption; in the first or Gutmann case the ulceration was at one time severe, but finally ceased, leaving the indurations already described. The course of the ulcerations in the first two cases certainly is not similar to that of the ulceration of the initial lesion of syphilis, which is sometimes very rapid, being then phagedenic in character, then again less rapid, but in that event not occupying such a length of time as was observed in these cases. So that, if these lesions were really syphilitic, the course of their ulceration did not correspond with that usually observed in the hard chancre; nor is the course of the ulceration like that of the soft chancre, which is either rapid, and then it destroys every tissue of the penis, or chronic, in which case, according to my observation, it involves a single tissue. Thus it runs a serpiginous course over the integument, occupying sometimes a long period; or, again, it gradually destroys the glans or the corpus spongiosum: in these cases the integument generally escapes. Apart from the weight which these clinical facts exert against the supposition that they were chancroidal sores with which these children were afflicted, we have the evidence offered by the appearances of the suppurating ganglia, which were not at all chancroidal in aspect, and then again the fact that contagion with the soft ulcer in the mouth would be almost impossible under these circumstances.¹ It was

¹ Diday reports ("Annales de Dermatologie et de Syphiligraphie," ii., 1873) an apparently authenticated case of intra-buccal, soft chancres. The patient was a girl having genital chancroids, who also had similar ulcers, one on the inner aspect of the lower lip, the other on the anterior aspect of the fauces.

suggested that perhaps a diphtheritic ulceration had attacked the wounds of these children, but there is no proof in support of such a view, as the features of the ulceration were not of the character observed in the diphtheroid complication of wounds, nor have we any evidence of the existence of diphtheria; and, had such a complication as diphtheria existed, it would in all probability have proved rapidly fatal. A fact of some significance is to be noted in this connection, and that is that in one case, that of Harris Lewin, the ulceration, which at one time threatened to be serious, was checked, and that a simple eczematous condition was left, whereas in the two others it was very destructive.

What, then, was the nature of this ulceration? As I shall show further on, and a perusal of the last three cases will reveal, the evidences of constitutional syphilis were very vague. It is stated that one child had an eruption which was regarded as syphilis, but stress is not laid on the point; and, with the exception of abscesses which occur in syphilitic and non-syphilitic children, we have no other symptom, so I think that under the circumstances we do not make our case in establishing syphilis. The question suggests itself: Was this ulceration the result of neglect of the wound of the operation, as we know that the low class of Polish Jews to which these children belonged is as a rule careless, uncleanly, and even filthy? I am inclined to answer this question in the negative, for the reason that I am informed by a person, who has performed many operations of circumcision among this class, that even amid their want of care and filth the wound generally heals very rapidly; and then also for the reason that there is in children generally a tendency to rapid reparation of wounds, even when not well cared for. Can it be that it is a slow destructive process dependent upon uncleanliness and upon some peculiar condition of the tissues, the latter induced by the former? We certainly observe in some children tendencies to local destruction of tissue, as in the sloughing of greater or lesser portions of the integument following sometimes upon a small pustule or scratch, and also in the disease we term "noma." Can it be that this was the condition which occurred in these children? Certainly, if it was not a

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syphilitic process, we must look to a peculiar condition of the tissues of the children for an explanation.¹

The occurrence of the eczema on the penis of the second case, after the existence of the previous inflammation, is an instance of the well-known fact that any long-continued inflammation of the skin may engraft on that tissue thereafter an eczematous tendency. As an evidence for or against syphilis, I am of the belief that it points to the non-syphilitic nature of the ulceration which preceded it, rather than to a specific ulceration.

In this connection I may state my views as to the existence of syphilis in the second child, named Harris Lewin, upon whom I observed the eczematous ulcers of the penis with inguinal adenitis. Having given the case due thought and observation, and having had my suspicions previously aroused as to the existence of syphilis, I must say that I am not convinced that the child was syphilitic, and I think that the details which I have given, conscientiously and as full as my opportunities for observation would allow, will convince any observer that there is in the premises reason for reservation and doubt. I reach this conclusion after a careful study of the case and its surroundings, and I respectfully venture to ex-

¹ It seems to me that this view of the local origin of this destructive process is the one which is the most rational, and is borne out by analogy. Thus in the phagedenic condition of hard and soft chancres, the fact that local measures are the only efficient means of treatment, and that the process is wholly uninfluenced by internal remedies, gives weight to the view that the rapidly-destructive process is in consequence of some tissue-change induced by the previous milder ulceration. Then, again, in the sloughing of the genitals of the female infant, we in the majority of instances cannot find a systemic condition to account for it, but inquiry sometimes reveals the fact that uncleanness induces hyperæmia and ulceration of the parts which goes on in some instances to destruction of large portions of tissues, under which circumstances also internal medication is powerless. Again, in chronic serpiginous chancroid, the destructive process sometimes continues long after the pus has ceased to be auto-inoculable, a fact which can only be explained by some local condition of the integument. Finally, in some rare cases of simple serpiginous ulcer of the integument following scratches or other lesions of continuity, we find that our only means of cure is in topical medication. Possibly these suggestions may help to explain the ulceration in these cases.

press it, as an eminent and learned authority has expressed the opinion that the case was one of syphilis. The same remarks apply to the other two cases, those of Wolf Harris and William Simon.

The condition of the ganglia of the two cases which I observed was simply that of a suppurative inflammation, having nothing specific in appearance; in fact, as evidence of syphilis, it is of no moment, as the same appearance is sometimes observed in cases where ganglia, enlarged by syphilis, have, owing to irritation of the initial lesion, undergone inflammation and formed abscesses, as well as in cases where ganglia have undergone simple suppurative inflammation. In the Gutmann case, which is undoubtedly syphilitic, the appearances were similar to those of the Lewin case, which is doubtful.

We now come to the evidences of syphilis in the system, and here the Gutmann case furnishes clear proof. As I have said, in the clinical history of the case, there was, at my first visit to the child, a papular syphilide of the kind most frequently observed in children, and at that time it was in a condition of involution. At a subsequent visit, I saw the traces left by this eruption as well as a relapse of the same lesion, in a more marked form. The peculiar features of the papules, their evolution, course, and decline, were such that any one familiar with the lesions of syphilis in the child would have readily and positively recognized them. There were no other progressive lesions apparent, and careful inquiry elicited the statement that lesions of the mucous membrane had not existed.

Lastly, as regards the evidences of syphilis, we have to consider the adynamic condition which was observed in these fatal cases. Recognizing, as we do to-day, that syphilis is a disease which, in greater or less degree, impairs the functions of organs and perverts the nutrition of the body, we might assume, in consequence of the suspicions attached to these cases, that syphilis was the remote cause of the death of these children. Plausible as such an hypothesis might seem, I think that the circumstances and facts taken as a whole will not warrant it, and that we must come to the conclusion that, although such

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may be the case, probably the long-existing lesion of the penis of these children, with the suffering which accompanied it, so reacted upon their general condition and impaired their functions that they either died of the resulting cachexia, or were rendered easy prey to intercurrent acute diseases. The general health of the Gutmann child appeared to me to be very good, as I observed evidences, in its development and strength, of a healthy nutrition, and to this state we may probably ascribe the fact of its not having succumbed to the malign influence of syphilis.

My conclusions, then, as to the existence of syphilis in these cases, are as follows :

1. That in the Gutmann child we have the typical lesions of syphilis.
2. That the circumstances of the development of the initial lesion in this case leave room for doubt as to whether the contagion took place in the religious rite, but that there is a possibility that it did.
3. That, in the other three cases, the facts elicited, as well as analogical evidence, point to a local rather than to a systemic condition as the origin of the lesions of the genitals.
4. That the evidences in the cases are against rather than in favor of the view that they were the result of syphilis.

The probability that the operation was the starting-point of the contagion being conceded, it becomes our duty, if possible, to prove that such was the case.

You undoubtedly know that the opinion has been suggested that these Jewish children became syphilitic in consequence of the wound in circumcision having been sucked, according to a custom prevailing among the low classes of stopping hæmorrhage, by the operator, who had syphilitic lesions in his mouth. I may here call your attention to the fact that among the lower classes of Jews this old method of controlling the hæmorrhage which takes place in the operation is now, though nearly obsolete, sometimes practised, and is done by the insertion of the child's penis in the mouth of the operator, which contains either port wine, salt-and-water, or vinegar-and-water. It can be readily seen that if primary or secondary lesions of syphilis exist in the mouth or throat of the operator,

the circumstances would be very favorable to the transmission of syphilis to the child. So that, in this case of the Gutmann child, to make our position positive, it is necessary to establish three facts: 1. That the operator was syphilitic; 2. That at the time of operation he had secondary lesions,¹ or their sequelæ, such as excoriations and fissures, in his mouth or throat; 3. That he had sucked the wound.

These are the points to be established concerning the operator; then the inquiry suggests itself, Could it be possible that syphilis was or could be communicated in the operation, the operator himself being perfectly free from syphilis? I think that an affirmative answer may be made to this inquiry, for the reason that the cutting instrument used might, perchance, have been soiled with syphilitic blood either from a patient operated on a short time before, say a day or two, or from that of a child who, perhaps, had been operated upon during the same ceremony as the first child, the instrument being used on the second without having been cleansed. To settle these points, we have to examine, as rigidly as possible, the physical condition of the operator, and to inquire carefully into the minute details and circumstances attendant upon the operation; and in this connection we must consider the fact that these contagions (for the time we will assume that the last three cases were syphilitic) took place during a period of four months;

¹ In the famous discussion upon Vaccinal Syphilis at the French Academy, M. Trousseau alluded to the fact that a Parisian peritomet, or circumciser, having been accused of having communicated syphilis to a number of Jewish children, was examined carefully by M. Ricord, who failed to find any lesion of syphilis in his mouth, or to establish the fact that he was syphilitic. In quoting this fact, in a very able and exhaustive article on Vaccino-Syphilitic Inoculations (*American Journal of Syphilography and Dermatology*, July, 1870, *et seq.*), my friend Dr. F. P. Foster makes, in explanation, the suggestion that "almost any mouth may be made to furnish blood by the simple act of suction." I am inclined to think that the suction in these cases is never sufficiently violent to cause blood to exude, and that we must exclude it as the vehicle of contagion. Should excoriations or fissures exist in the mucous membrane, or should such a pathological condition as softness and tumefaction of the gums from any cause—as, for instance, salivation—exist, or the operator be of the hæmorrhagic diathesis, I can readily see that the chances of contagion would be rendered probable.

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therefore the following inquiry arises: Could the primary or secondary lesion or lesions, or their sequelæ, of syphilis exist for such a period, and did this person in that time, besides circumcising these four children, circumcise any others, and if he did, what is their condition as far as known at present? As regards the existence of the primary lesion of syphilis, we positively know that it might have existed four months and even longer; and as regards the secondary lesions of syphilis, which we should find in or about the mouth, namely, mucous patches and the excoriations and fissures resulting from them, we know that they persist sometimes for very long periods. Therefore the usual well-known course of these lesions would render it probable that contagion might take place during a period of four months. I examined the operator, Mr. H—, with great care, and I found upon him no evidences of syphilis past or present. In the throat and mouth I found the tissues in a normal condition. The lymphatic ganglia, as far as accessible, were normal except those of the left inguinal region, which were slightly enlarged. Upon the upper part of the trunk was a quite copious eruption of tinea versicolor, and upon the back were a few acne-papules. With these exceptions, the integument, which is undergoing the atrophy peculiar to old age, presented no lesions. There was a hernia of the right side, and a corresponding large hydrocele. There were no evidences of nodes upon any of the bones, no signs of preëxisting lesions of the eyes, or nails, and upon the penis no cicatrices were to be seen. The answers to my inquiries, which were made by the kindly old man with the utmost readiness and candor, were that he never had had any lesion on the penis nor discharge therefrom, he never had had a chancre anywhere about the body, nor had he been troubled with any sores of the mouth or throat. Upon this point he was emphatic. I inquired minutely as to the existence of every conceivable lesion of syphilis, and I was answered in the negative. The old man is now past sixty years of age, and has had no sickness except chronic rheumatism of the larger joints, from which he has suffered for years, and which, by-the-way, does not present any syphilitic characteristics. As regards the operation, he showed me the two instruments used

in its performance: the first is a flat knife with two cutting edges; the second, a shield of pure silver, which is merely a plate of flat metal somewhat round in shape, and perforated through two-thirds of its extent by a fissure about a line in width. The prepuce is slid into this fissure, and, when the measurements have been adjusted, the distal portion is excised by the knife, cutting from side to side, rather than from above downward, or *vice versa*. The instruments were perfectly clean at the time of my inspection, and he assured me that he always took great care to keep them so. In answer to my inquiry as to whether he ever circumcised two children at the same ceremony, he said that he never did except in cases of twins, and he had probably performed the rite three thousand times. As to the sucking of the wound, he said that he had sometimes done it, but of late years very rarely if at all, and that he preferred to squirt the styptic lotion upon the wound, a procedure which, I believe, is largely if not exclusively followed by the higher classes of Jews. He looked over his record and found that, during the four months in question, he had performed the rite eight times, inclusive of the cases under consideration; and he assured me that he had seen two of the cases very recently, and that they had had no trouble, and that, one month previous to the circumcision of the first case, he had circumcised his grandson, whom I saw to be healthy.

The evidences are then in favor of the freedom of this person from syphilis; yet, strong as they are, we are yet warranted in the suspicion that, even after this careful examination, syphilitic lesions might have existed; still, in a scientific investigation, vague theories and suspicions go for naught: therefore we have failed to prove one point as to the transmission of syphilis from the operator to the infant, and I think that we likewise fail to explain the existence of syphilis by reason of syphilitic virus transmitted on the instrument. So that, whatever our suspicions may be, the facts, as far as we can get at them, thoroughly exonerate Mr. H—.

This explanation failing, the next point to be considered is, Could syphilis have been by some means engrafted on the wound either by the libidinous conduct of some syphilitic fe-

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male, by the application of dressings,¹ or caustics soiled with a syphilitic secretion?

After careful inquiry, directed so as to bring out every possible source of such accidents, I could not elicit any affirmative information. In this connection I must mention the fact that has already been stated, that the induration in the Gutmann child was developed directly in the line of incision, and was confined to that portion. This fact certainly points very strongly to the operation as its source, as it is probable that, if syphilis had been, by a subsequent action, engrafted on the wound, its initial lesion would probably have been more local in character, and would not have followed the incision-line so closely, except perhaps in the almost impossible circumstance that it had been sucked after the operation and before healing by a person having in his or her mouth syphilitic lesions. One final point is to be considered in this connection. We have in the Gutmann case a period of incubation of the initial lesion of about sixty days' duration. Does this fact or does it not point to the operation as the origin of the syphilis in the child? Does the lapse of such a length of time preclude the hypothesis that contagion dates from the operation? On this point we unfortunately have not very numerous clinical data as observed in the child. In the adult such a length of time, though exceptional, is admitted as having elapsed, and I have seen two authentic cases with such an incubation. In the infant we have not any recorded case, but we have the clinical fact, which is important, that, when developed in the vicinity of the mouth, the period of incubation of these lesions is comparatively short, namely, a week or ten days. The conclusions, then, to be deduced from these facts are somewhat

¹ The opinion has recently been advanced by my friend Prof. W. Boeck, of Christiania ("Die Eigenschaften des Syphilitischen Virus," *Archiv für Dermatologie und Syphilis*, iv., 1872), that such articles as towels, etc., cannot be the means of communicating syphilis, as he thinks he has conclusively demonstrated the point by experiment. I am inclined to differ in opinion, for the reasons—1. That Dr. Boeck, in his experiments, used a purulent auto-inoculable secretion, produced by irritation of a hard chancre, and not the secretion of the chancre itself; 2. Because I have seen at least one authentic case in which contagion took place in this manner.

conflicting, as the shape and general features of the lesion of the penis are such as to render it probable that it originated in the operation, while the long incubation of the lesion establishes a probability that its origin was more recent. Therefore, after all our patient inquiry, we must finally leave the origin of all these cases in doubt: the first, as to whether the syphilis was communicated in the religious rite;¹ the other three as to whether or not they were cases of syphilis at all. Yet I am disposed to think that our labor can be turned to profit in two ways: first, as suggesting some facts which will materially assist in following up similar cases in future; second, in bringing forward prominently the fact that in this widespread religious rite there is a probability of the occurrence

¹ There is so much loose statement regarding Ricord's cases of suspected syphilis in circumcision, that I think that they must be cast aside as unworthy of record. Ricord himself did not find any syphilitic lesions in the mouth of the circumciser, nor does he satisfy himself that he was syphilitic at all; and, although he at one time regarded the cases as syphilitic, he afterward doubted his own conclusion, and thought that perhaps the disense was glanders with which the children were afflicted. This proves, I think, very distinctly that a clear case of syphilis was not made out in any of the children, and, considering the acumen of the observer, the number of cases he had for observation, and the fact that they were seen in full time, I think that, had they been cases of syphilis, the diagnosis would have been clearly made, and we should have an unequivocal statement from Ricord, instead of receiving it at second hand. Trousseau, in the famous discussion on Vaccinal Syphilis ("De la Syphilis Vaccinale," p. 81, Paris, 1865), quoted the cases as showing that syphilis could be communicated by such a physiological secretion as the saliva, but we now know assuredly that such an hypothesis is utterly untenable. There being so much doubt even in Ricord's mind as to the syphilitic nature and origin of these cases, it seems very strange that some authors accept these cases as precedents, and on their evidences admit unreservedly such a mode of contagion. Certainly such a contagion is probable, but it is not established by such vague and unsatisfactory conclusions as were necessarily arrived at in these cases. I have been informed by friends that several undoubted cases of this form of contagion have occurred in the service of Dr. Sigraund, in the General Hospital of Vienna; but, as their histories have not been published, we are not as yet in possession of a single reliable recorded case. In reading, recently, Dr. Kaposi's very elegant atlas of syphilis ("Die Syphilis der Haut und der Augrenzenden Schleimhäute," Vienna, 1878), I find that he gives the illustrations of two cases of Jewish children having ulcers on the penis. The first case is that of a child, four months old, who has chancreoids of the

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of syphilitic contagion. This naturally brings us to the question of prophylaxis: What can be done to prevent the occurrence of syphilitic contagion in this rite?

You are undoubtedly aware of the fact that the operation is performed by three classes of persons, by the rabbi, by physicians, and by non-professionals. Among the higher classes of Jews it is either done by a rabbi or by a physician, neither of whom, as a rule, sucks the wound, but rather squirts the styptic solution upon it. Consequently, here the chances of contagion are at a minimum. Among the lower orders, however, the operation is largely performed by non-professionals, among whom the habit of sucking¹ the wound is usually followed, who may be of course irresponsible and ignorant persons, certainly those who are liable to syphilis, and who, ignorant of the contagious character of its lesions, are liable to communicate it. The most effectual means of preventing such contagion, then, consists in the abolition of the custom of sucking the wound.² In fact, under the circumstances it

glans and furrow, and the mucous layer of the prepuce. The second case is, likewise, that of a boy, four months old, which was observed at the same time as the first. Upon the penis, in this case, are two ulcers, one, in the reparative stage, at the meatus, the other near the frenum, and said to be seated on a hard base. These ulcers are described as soft chancres, and said to have been communicated in the rite of circumcision. It seems singular that chancreoid contagion should take place in this rite, and also that chancreoids should have existed for four months, and should not have attained a larger size than they appear to have, as judged by the illustration. The full details of the cases will undoubtedly appear in a subsequent fasciculus of the work.

¹ In his "Lettres sur la Syphilis," troisième édition, p. 192, Paris, 1863, Ricord, in speaking of syphilitic contagion by suction of the wound in circumcision, says that he had urged the Jewish Consistory of Paris to abolish the practice, as tending to propagate syphilis, and that that body had followed his advice.

² It will be seen that in either event, whether the wound is sucked or whether it is squirted upon from the mouth, the operator uses a styptic solution, viz., salt-and-water, vinegar-and-water, or diluted port wine. A practical idea here suggests itself. Suppose the operator had mucous patches in his mouth, or even an initial lesion of syphilis, and that he either squirted the solution, or retained it in his mouth and inserted the penis, what effect would the styptic solution have upon the contagious secretion; or, again, what would be the effect of such copious dilution?

would be expedient that the styptic fluid should not be put in the mouth at all. A further safeguard would consist in the delegation of responsible persons, physicians for instance, for the performance of the operation, and in the removal of the privilege to perform the rite from the hands of the non-professionals who now so largely perform it.' In suggesting the selection of physicians as operators, I am of the opinion that, as they are familiar with the contagious lesions of syphilis, of syphilitic contagion, and of the circumstances attending such contagion, the chances would be very small. Then, again, as it is an operation sometimes attended with troublesome accidents, such as severe hæmorrhage,¹ etc., it is necessary to have

We know that the secretion of the hard chancre and also that of mucous patches is an albuminous fluid, liable like all such fluids to undergo coagulation: would this coagulation prevent the contagion? My impression is that it might. Then, again, what would be the result of the great dilution? I also think that in this instance it might prevent contagion. So that in either case the chances of contagion would be rendered in all probability less. I think, however, that if an incised wound similar to that of circumcision were brought into direct contact with mucous patches or a hard chancre, there would be a very great risk of contagion, even though the styptic were held in the mouth.

¹ In the discussion upon this paper, when read before the Public Health Association of New York, June 12, 1873, the fact was brought out that there are many recognized non-professional circumcisers, who perform the operation even more skillfully than the majority of physicians, and who are equal to any emergency which may arise in the course of the operation, or of the healing of the wound. Indeed, among those who spoke with authority, there was a decided preference in favor of these persons. However, it seems to me that there should be some tribunal or source of power, so that the performance of the rite should be only delegated to persons of recognized intelligence and skill, and that it will not, as it has among the lowest classes, sometimes fall into the hands of ignorant or unskillful persons.

As regards the instrument, I find that, among both high and low, it is looked upon as somewhat sacred, is reserved exclusively for the operation, and kept scrupulously clean, so that in reality there is very little chance of any contagion from it.

² In the same discussion, Dr. C. P. Russel, the Registrar of Vital Statistics of New York, made the following remarks *à propos* of this subject. "... I desire simply to coöperate in the endeavor to suppress a species of malpractice common among the poorer Jews, to which my attention was first drawn in the latter part of 1870, by a succession of deaths

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some one in attendance who can act intelligently and efficiently. In the performance of the operation it is well to bear in mind the fact that syphilitic blood is one of the vehicles of syphilitic contagion; therefore, care should be taken to always use perfectly clean instruments, and never to perform the rite upon two children in succession, without thoroughly cleansing the instruments after the operation on the first, and before that on the second, because the first child might perhaps be the victim of hereditary syphilis, in which case its blood would possess contagious properties.

My conclusions, then, upon the subject are as follows:

1. That in the Jewish rite of circumcision there is a possibility of the occurrence of syphilis.
2. That the contagion is most likely to be communicated in the act of sucking the wound, the mouth containing a styptic liquid, and that perhaps it may occur by means of instruments soiled by syphilitic blood.
3. That the chances of such contagion are rendered greater by the performance of the operation by irresponsible, non-professional persons.
4. That the operation of sucking should be wholly abolished, and that, if a styptic solution of any kind is used, it should be poured from a vessel on the wound rather than squirted upon it from the mouth of the operator.
5. That in no instance should two or more children be thus operated on consecutively without a thorough cleansing of the

returned as due to hæmorrhage after circumcision. My inquiries then convinced me that circumcision is rarely fatal with proper surgical care, and that such result, when it occurs, if not dependent upon an hæmorrhagic diathesis, is generally to be ascribed to unskillful performance of the operation and subsequent inattention to the case. It appears that there exists a class of ignorant and clumsy operators who make a special business of circumcision, performing it for a small fee, and leaving the infant afterward to the sole care of its parents. I understand, however, that there are also a number of very competent non-professional gentlemen who are in the habit of performing the operation in a manner quite unobjectionable. It seems inexpedient to take any official notice of the subject; but it is suggested that those professional gentlemen and laymen who possess influence among our Hebrew population should interest themselves in checking the evil by some organized effort."

instruments and utensils used after each operation, and that in every instance the greatest care should be taken in cleansing the instruments.

6. That the performance of the rite should be absolutely confined to responsible and educated persons; either a physician alone being selected, or a physician assisting an officiating rabbi, or a circumciser of recognized merit.

7. That, under these circumstances, accidents of any kind are reduced to a minimum.

Attention to these points will, under any circumstances, be of great benefit, and will render a rite, which has useful sanitary bearings, less liable to fall into disrepute among those upon whom it is obligatory.

ART. II.—*Accommodation for the Insane on the Cottage Plan.*

By WINTHROP B. HALLOCK, M. D., Assistant Physician to the Connecticut General Hospital for the Insane, at Middletown.

THIS subject of provision for the insane is not a new one. Among those who are immediately connected with the care of the insane, the question as to how *all* of them (the independent class) shall be decently provided for, has been extensively discussed, and there seems to be no sign of its abatement.

Outside of the medical profession the fact which gives rise to the discussion is not very generally known. The public have no knowledge of the great number of dependent chronic insane existing in almost every State that are unprovided with asylum accommodation. A part of them only get such accommodation; the rest are mainly kept in almshouses, and it is desirable that all should be cared for alike. Hence the discussion of the question as to the best mode of bringing about this much-desired end.

The problem of merely the mechanical part of making provision for the insane is generally looked upon as one extremely complicated and difficult to deal with. Every asylum building for the insane, in this country, is evidence of this fact. To provide accommodation upon the present hospital plan for a